

DETAILED ACTION

In accord with Panel Decision from Pre-Appeal Brief Review dated 2/13/2008
Prosecution is reopen and the finality of the rejection of the last Office action mailed on
August 29, 2007 is withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 14- 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, because specification does not reasonably provide enablement for limitation of Claim 14 as “applying at the same time a vibratory and rotational movement”.

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Case law holds that applicant’s specification must be “commensurately enabling [regarding the scope of the claims].” See *Ex Parte Kung*, 17 USPQ2d 1545, 1547 (Bd. Pat. Appl. Inter. 1989). Otherwise **undue experimentation** would be involved in determining how to practice and use applicant’s invention. The test for undue experimentation as to whether or not all compounds within the scope of claim 14 can be

used as claimed and whether claim 14 meet the test is stated in *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. Appl. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988). Upon applying this test to claim 14, it is believed that undue experimentation **would** be required because:

(a) *The quantity of experimentation necessary* is **great** since limitation of claim 14 as “vibratory and rotational movement” read on any type of vibratory and rotational movement – any speed or angle of rotational movement or any amplitude and frequency of vibrational movement.

(b) There is **no direction or guidance presented** for making a specific types of rotational and vibrational movement.

(c) There is an **absence of working examples** concerning making PET granules with any type of rotational or vibrational movement.

In light of the above factors, it is seen that undue experimentation would be necessary to make and use the invention of claims 14 – 20.

2. Claims 14 -20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, attention is drawn to MPEP 2163 according to which: “To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed

invention.” Attention is also directed to MPEP 2163.02 according to which: “An objective standard for determining compliance with the written description requirement is, “does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed.”

In view of the above guidelines set forth in the MPEP, it is the examiner's position that given the extraordinary breadth and generality behind the presently claimed terminology of "a vibratory and rotational movement" and further given that the specification lacks sufficient descriptive detail explaining, for instance, just type of and how much vibratory and rotational movement would be required and/or guidance as to generating specific types of vibratory and rotational movement and/or absence of working examples, it is appropriate to conclude that one of ordinary skill would fail to clearly recognize just what the invention is as claimed by the applicant.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 14-15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrow (WO 01/55051) in view of Horne (WO 02/36318) combine with evidence given by “Polyesters, Thermoplastic” Article published by Encyclopedia of Polymer Science, 2002.

Regarding Claims 14 and 15 Barrow discloses use of plastic aggregates in lightweight concrete articles, particularly fused or adhered granulated aggregates(lines 23 –25,page 6 and lines 1-5,page 7) - made from several sources, including recycled PET bottles (lines 5-10,page 2), by passing mixed granulated material into heated pressure chamber (see lines 6-25, page 7 and lines 11-16,page 12).

Note, that Barrow is silent regarding temperature in the heated chamber and about rotational and vibratory movement of particles.

However, Horne teach that rotational movement by means of rotor plate (see page 11, lines 1-5) could by apply to mixture of shredded recycled plastic pieces in order to fused particles together.

It is examiner position, that particles processed by rotor plate will experienced not only rotational movement, but will also experienced vibrational movement due to collisions particles with each other or internal walls of processing equipment.

Regarding limitation as “ placing the flakes to ventilated oven and heating to temperature of 250°C – 260°C “ note, that PET will start melting (see page 510 of Article “ Polyesters, Thermoplastic) at 260°C . Therefore, it is obvious not to exceed this temperature 260°C in order to fused particles together, with out changing shape of the particle due to melting.

Therefore, it would have been obvious to ordinary skill in the art to add rotor plate and not to exceed melting temperature of PET per teaching of Horne combine with evidence given by Article “ Polyesters, Thermoplastic” to process disclosed by Barrow

Art Unit: 1796

in order to improve efficiency of fusing particles together without changing shape of the particles due to melting.

4. Claims 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrow (WO 01/55051) in view of Horne (WO 02/36318) combine with evidence given by "Polyesters, Thermoplastic" as it was applied to claims 14-15, 17 and 19 above and in further view of Fong (US 6,368,682).

Barrow in view of Horne (WO 02/36318) combine with evidence given by "Polyesters, Thermoplastic" silent about surface treatment of PET flakes with flame.

However, surface flaming in order to increase adhesion of PET is well known in the art.

Fong teaches that priming or flaming surface of PET provides improvement in adhesion. (see lines 27 – 43, column 6).

Therefore, it would have been obvious to ordinary skill in the art to add step of flame treatment of PET surface, as it taught by Fong, in order to improve bonding of sand to PET flakes in a method disclosed by Barrow in view of Horne combine with evidence given by "Polyesters, Thermoplastic".

Response to Arguments

Applicant's arguments with respect to claims 14-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS NOT MADE FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GENNADIY MESH whose telephone number is (571)272-2901. The examiner can normally be reached on 10 a.m - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272 1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gennadiy Mesh
Examiner
Art Unit 1796

/GM/

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796